

SAP Community > Products and Technology > Technology
> Technology Blogs by Members > Fiori Development with VSCode and NodeJS

Fiori Development with VSCode and NodeJS



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Active Contributor

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Hi,

In this post, I would like to share with you, how to develop and run SAP Fiori apps on your local computer with Visual Studio Code and NodeJS. In that way, you can explore, learn, develop SAP UI5 and Fiori Elements on your computer.

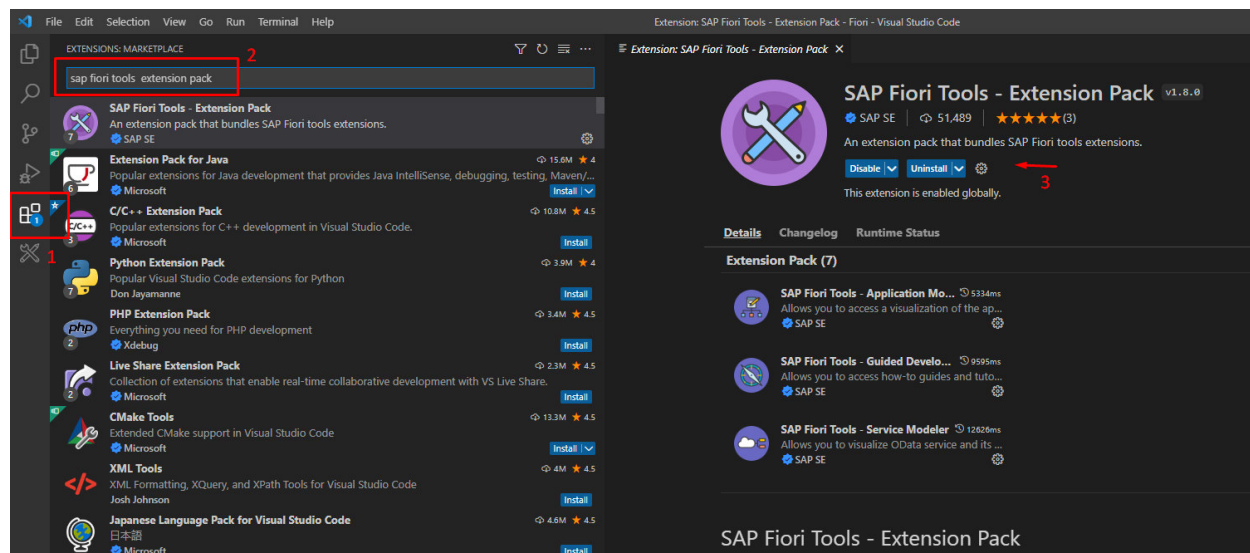
[Download VSCode - link.](#)

[Download NodeJS - link.](#)

Install VSCode and NodeJS.

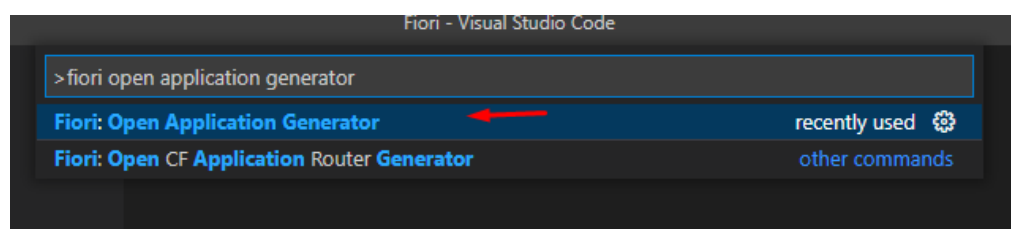
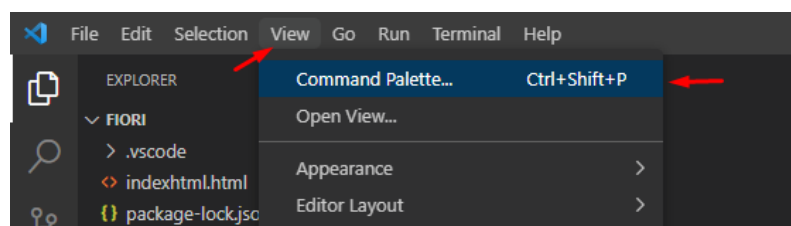
Save path of NodeJS to Environment Variables -> System Variables -> Path. - Restart your computer.

Open VSCode and go to extensions and install "Sap Fiori Tools Extension Pack". This will install all required extensions.

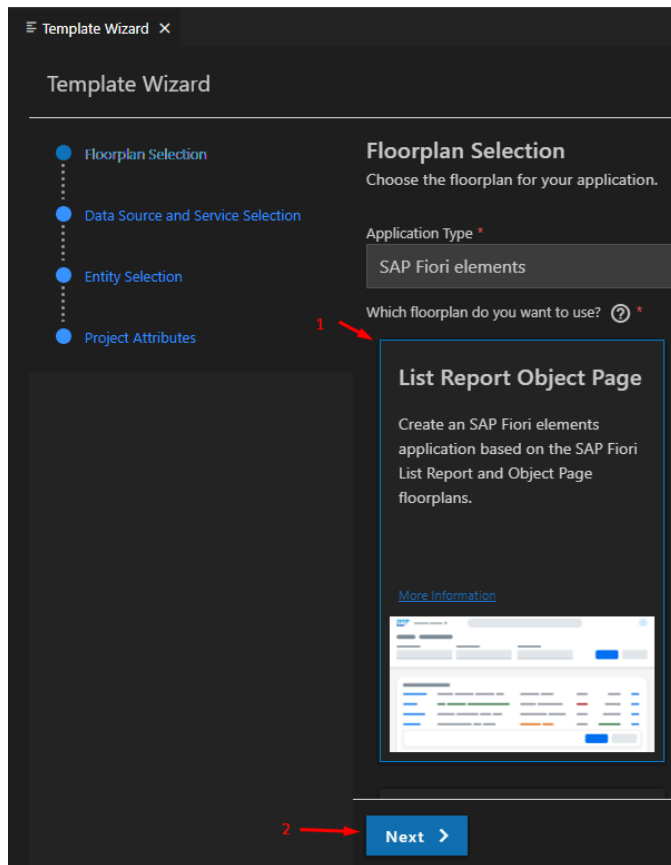


Install SAP Fiori Tools - Extension Pack

To create a new project, open command palette and run > "fiori open application generator"

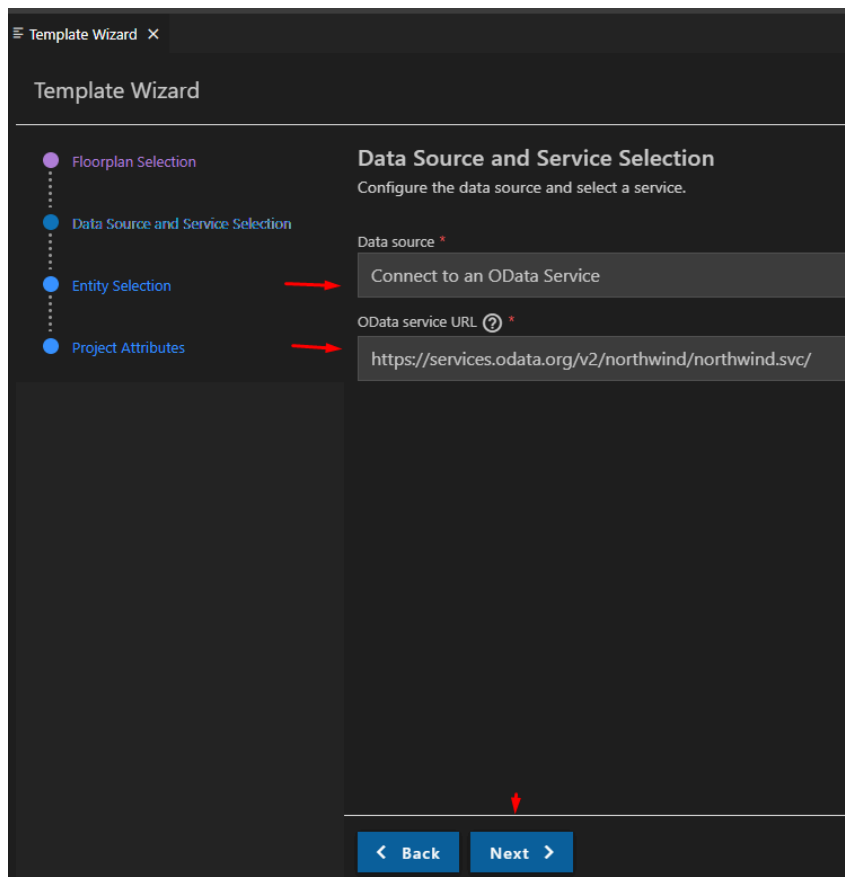


Choose template from template wizard. In this example application type is SAP Fiori Elements, but instead you can choose SAP UI5 freestyle as type and you can have a classic SAP UI5 Fiori app.



Choose data source - We will be using odata northwind in this example.

Url : <https://services.odata.org/v2/northwind/northwind.svc/>



Select Main Entity

The screenshot shows the 'Template Wizard' interface with the 'Entity Selection' step active. On the left, a vertical list of steps includes 'Floorplan Selection', 'Data Source and Service Selection', 'Entity Selection' (highlighted), and 'Project Attributes'. The main area is titled 'Entity Selection' with the instruction 'Configure the selected service.' It contains two dropdown menus: 'Main entity *' with 'Products' selected, and 'Navigation entity *' with 'None' selected. Red arrows point to the 'Main entity' dropdown and the 'Next' button at the bottom right. The bottom of the wizard has '< Back' and 'Next >' buttons.

Provide project details

Note: Version of SAP UI is important. Some versions does not load!

Pay Attention: Module name is project1, therefore a new folder will be created under workspace folder with project1 name. We need to run npm commands in this folder!

Template Wizard ✕

Template Wizard

- Floorplan Selection
- Data Source and Service Selection
- Entity Selection
- Project Attributes**

Project Attributes

Configure the main project attributes.

Module name [?] *
project1

Application title [?]
App Title

Application namespace [?]
com.blogspot.javafish.fiorielements

Description [?]
A Fiori application.

Project folder path *
c:\Users\10124037\Documents\Cabs\Workspace\Fiori

Minimum SAPUI5 version [?] *
1.96.14

Add deployment configuration
☐ Yes ☒ No

Add FLP configuration

< Back Finish

Application Info – project1 - Fiori - Visual Studio Code

Application Info – project1 ✕

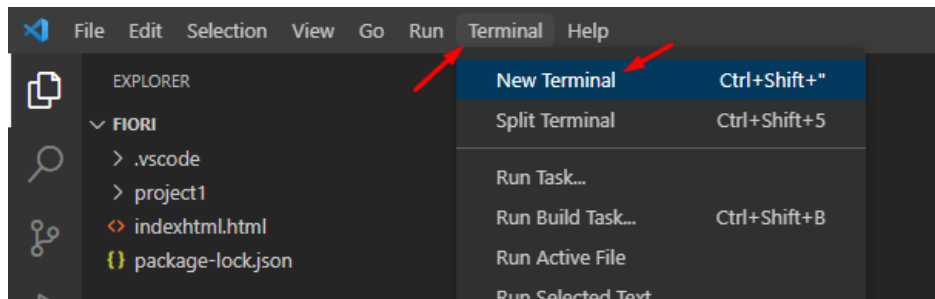
Application Information

Project Details

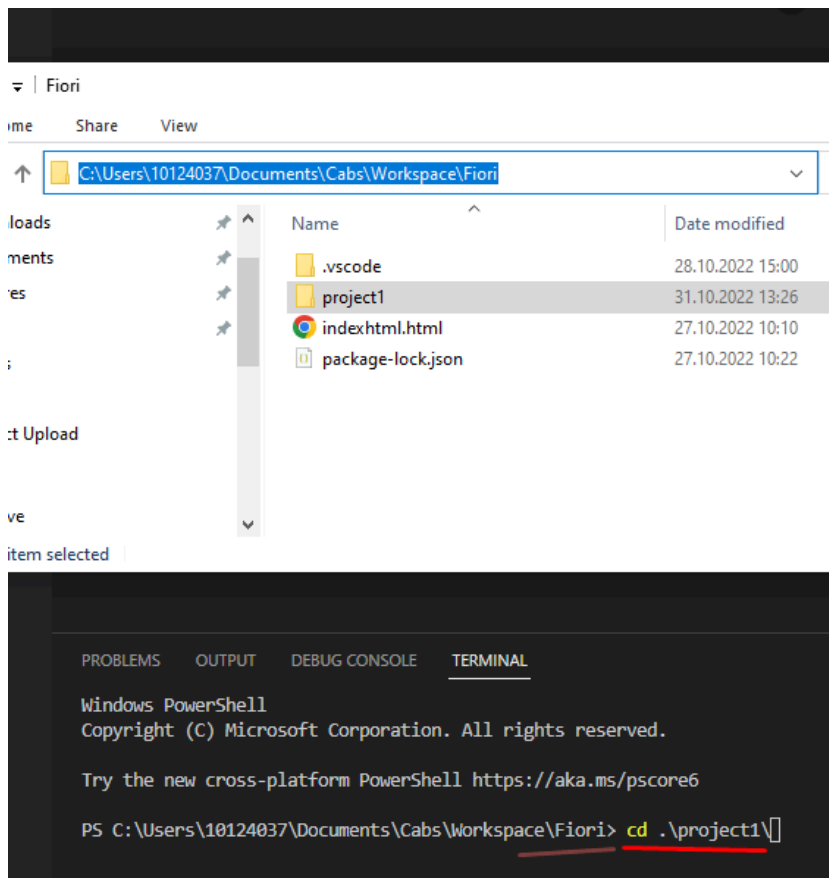
Module Name	...ot.javafish.fiorielements.project1	Type	SAP Fiori elements	Pages
Application Title	App Title	SAPUI5 Version	1.96.14	ListReport Products
Namespace	...m.blogspot.javafish.fiorielements	Project Type	EDMX Backend	ObjectPage Products
Location	...s\Cabs\Workspace\Fiori\project1	Main Service	northwind-svc (V2.0)	
Files	package.json manifest.json			

Project1 is created and info is above.

Now open a terminal screen.



We need to be in project folder to run npm commands. we run "cd project1" to change folder in terminal screen.



We are now in project folder and we need to run "npm update" command.

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Windows PowerShell

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Try the new cross-platform PowerShell <https://aka.ms/pscore6>

PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori> cd .\project1\

PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori\project1> npm update

```
npm WARN EBADENGINE Unsupported engine {
npm WARN EBADENGINE   package: '@sap-ux/vocabularies-types@0.5.7',
npm WARN EBADENGINE   required: {
npm WARN EBADENGINE     pnpm: '>=6.26.1',
npm WARN EBADENGINE     node: '>=12.22.5 < 13.0.0 || >= 14.16.0 < 15.0.0 || >=16.1.0 < 17.0.0'
npm WARN EBADENGINE   },
npm WARN EBADENGINE   current: { node: 'v18.12.0', npm: '8.19.2' }
npm WARN EBADENGINE }
```

up to date, audited 846 packages in 21s

20 packages are looking for funding
run `npm fund` for details

5 **moderate** severity vulnerabilities

To address all issues, run:
npm audit fix

Run `npm audit` for details.

PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori\project1> █

Project is ready to run.

We need to run "npm start" to start our server. A new browser page will open.

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori> cd .\project1\

PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori\project1> npm update

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npm WARN EBADENGINE   },
npm WARN EBADENGINE   current: { node: 'v18.12.0', npm: '8.19.2' }
npm WARN EBADENGINE }
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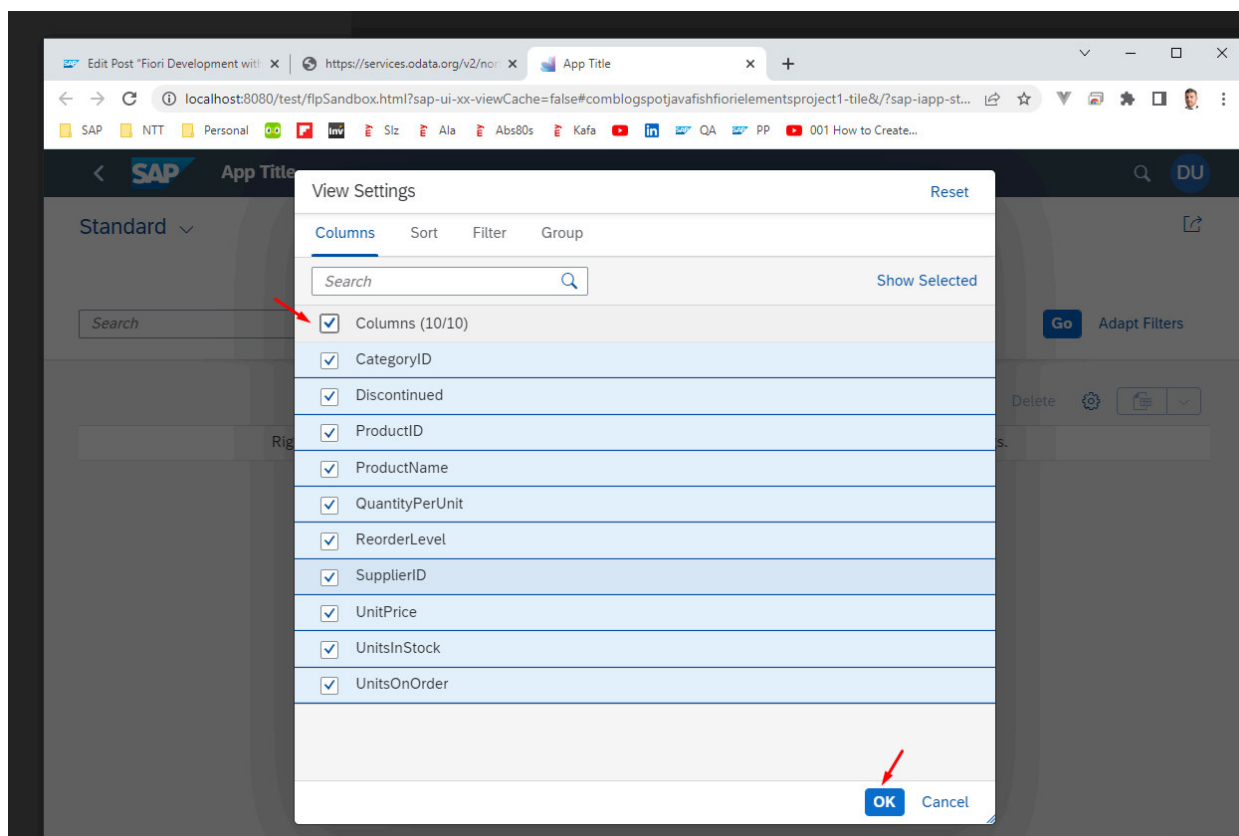
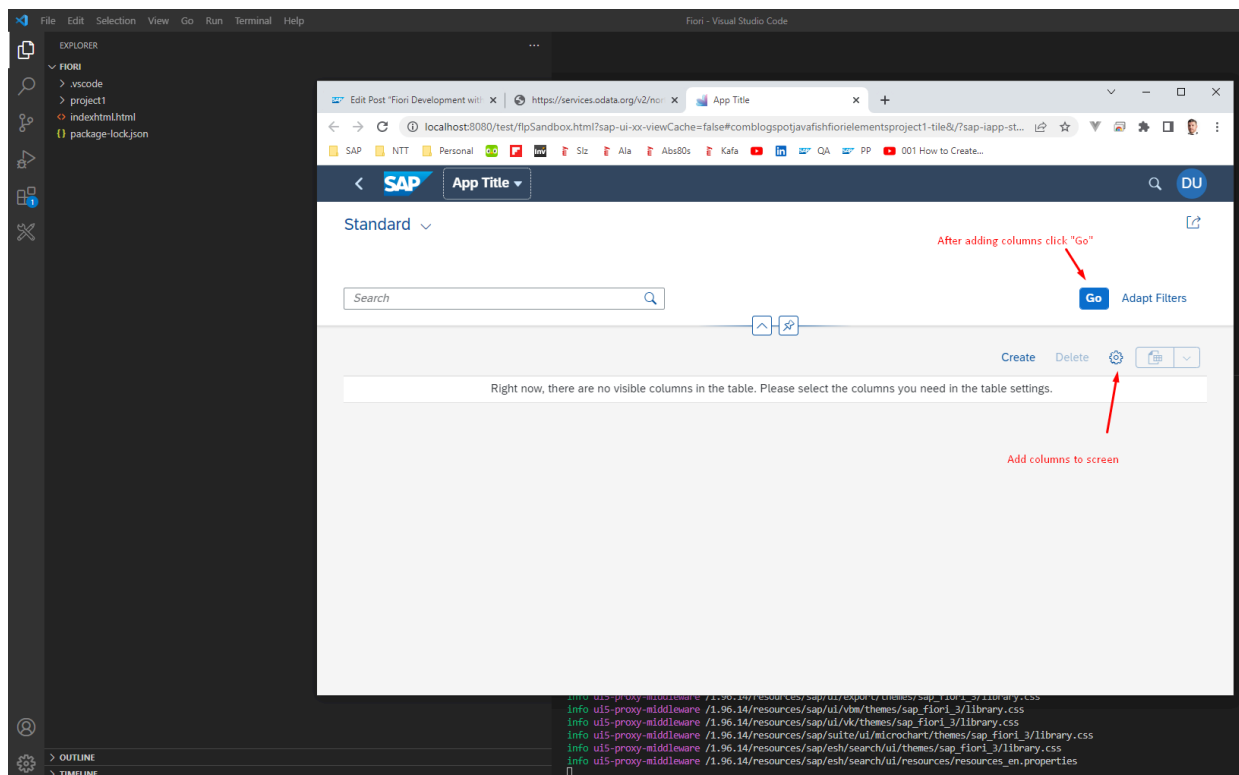
Run `npm audit` for details.

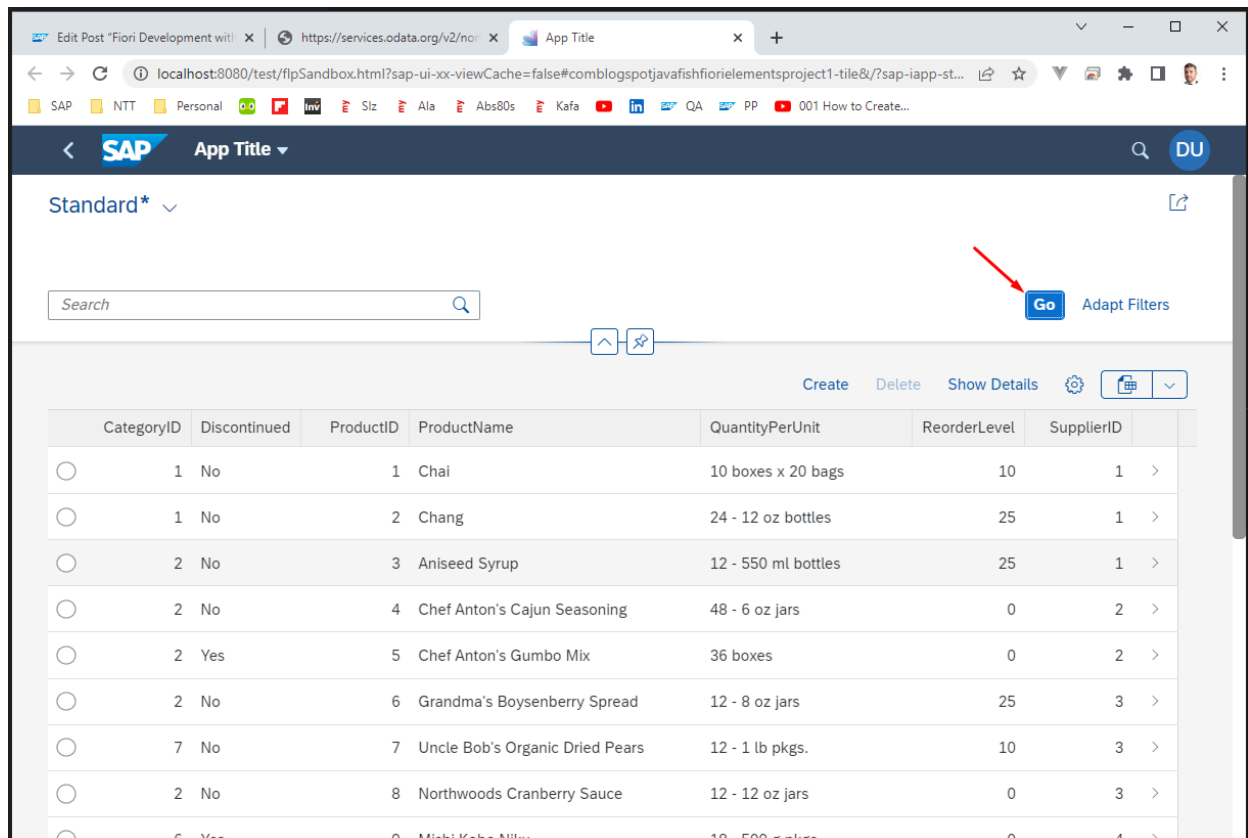
PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori\project1> npm start

> project1@0.0.1 start

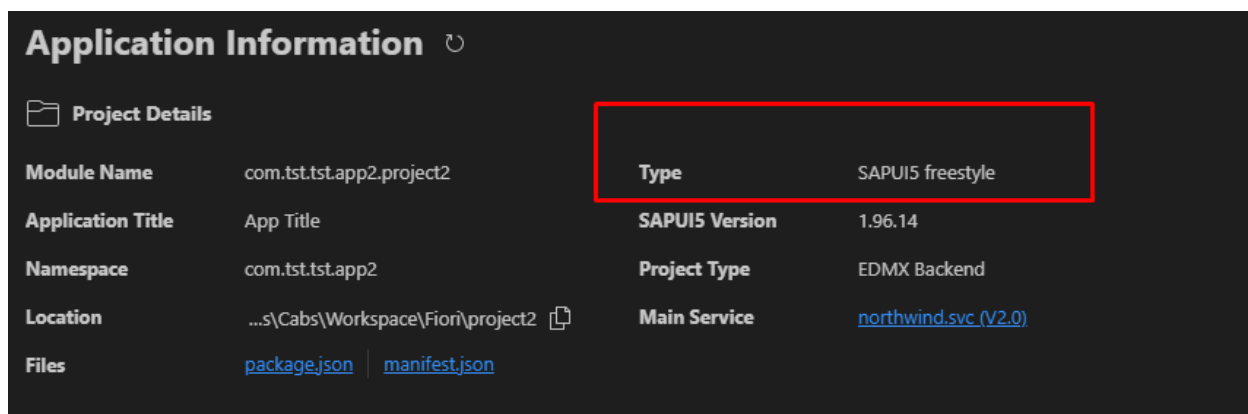
> fiori run --open "test/flpSandbox.html?sap-ui-xx-viewCache=false#comblogspotjavafishfiorielementsproject1-tile"

Now go to new browser page and change columns display settings and click "Go" to load data.





That is all. Now you have a working Fiori elements example with oData service. You can explore and enhance that app as you wish. If you want, you can create a new project for SAP UI5. Steps are exactly same, just choose SAPUI5 freestyle for application type.



SAP UI5 Project Info

Finally, a few links on topic,

- a link for [fiori elements with code and layout samples](#).
- and [this blog post by Sai](#) was really helpful on VSCode setup and sample app.
- [Another blog on Fiori and VsCode development](#). [Sap Developers link](#).
- A blog post on [extending SAP Fiori elements](#) app.
- [Fiori Demo apps with tutorial](#) by SAP([on step 25 of walktrough](#) you may need [that blog](#) and [that too](#)).
- [Fiori Elements Tutorials](#)
- [Developing and Extending SAP Fiori Elements Apps](#)

Deploying to Repo

- [How to deploy UI5 application to SAP Abap repository](#) by pandya123.
- [Download and Deploy UI5 Code by using SE38:/UI5/UI5_REPOSITORY_LOAD](#)
- [Another blog post by Sai Nithesh](#).
- [Another Deploy Via SE38](#)
- [Deploying to Git Repo](#)

Tools

- [A useful VSCode extension for UI5 development](#).
- [Application Wizard Extension for VSCODE](#)
- [SAP UI5 TOOLS to connect SAP Server \(define sap systems\)](#).

Useful vscode command palette commands.

```
Fiori: Preview Application → npm run start  
Fiori: Open Application Generator → Fiori elements or free style app generator  
Fiori: Add Deployment Configuration → Deployment settings, requires ui5 tools system  
Fiori: Deploy Application → Deploy with given settings
```

Hopefully that is useful for you and helps you to gain new skills without need for BTP trial accounts.

Feel free to add your samples and links to comments.

Thanks for reading.

Tags:

Fiori

NodeJS

sap ui 5

vscode

Comments



andersoneliel Discoverer

2024 Jun 03

7:35 PM

Excellent tutorial. No fluff and straight to the point. Thank you very much, it helped me a lot.

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